

Process identifier	Production mode	Final state objects
$Z(\ell\ell)+\text{jets}$	-	Charged leptons, jets
$t\bar{t} \rightarrow 2\ell 2\nu 2b$	-	muons, b quark jets, genuine $p_{\text{T}}^{\text{miss}}$
$W(\ell\nu)+\text{jets}$	-	charged leptons, jets, genuine $p_{\text{T}}^{\text{miss}}$
$H \rightarrow \text{invisible}$	vector boson fusion (qqH)	forward jets, genuine $p_{\text{T}}^{\text{miss}}$
$HH \rightarrow b\bar{b} \tau\tau$	gluon fusion (ggH)	Tau leptons, b quark jets, genuine $p_{\text{T}}^{\text{miss}}$
$t\bar{t}H(H \rightarrow b\bar{b})$	$t\bar{t}H$	Jets, b quark jets, charged leptons, genuine $p_{\text{T}}^{\text{miss}}$
$t\bar{t}H(H \rightarrow \mu\mu)$	$t\bar{t}H$	Muons, jets, b quark jets, genuine $p_{\text{T}}^{\text{miss}}$
SMS T2tt-4bd	$gg \rightarrow \widetilde{t\bar{t}} \rightarrow 2b4q2\widetilde{\chi}_1^0$	b quark jets, jets, genuine $p_{\text{T}}^{\text{miss}}$
SMS TChiZZ	$gg \rightarrow \widetilde{\chi}_2^0\widetilde{\chi}_2^0 \rightarrow ZZ\widetilde{\chi}_1^0\widetilde{\chi}_1^0$	charged leptons, jets, genuine $p_{\text{T}}^{\text{miss}}$